

# CALIFORNIA. ~~STATE~~ BOARD OF HEALTH.

## MONTHLY BULLETIN.

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### STATE BOARD OF HEALTH.

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### STATE BUREAU OF VITAL STATISTICS.

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### VITAL STATISTICS FOR APRIL.

*Summary.*—For April there were reported 1,113 living births, 2,386 deaths, exclusive of stillbirths, and 1,010 marriages, which, for an estimated State population of 1,882,483, give the following annual rates: Births, 7.1; deaths, 15.2; and marriages, 6.4, per 1,000 inhabitants. The relatively low rates are explained by the seismic disturbance in San Francisco and vicinity on April 18th. The great fire in the metropolis destroyed the statistical records for the first part of the month, and the deaths for the latter part, even including deaths recorded as due to earthquake and fire, fall short of the usual monthly total. Moreover, the disturbed conditions necessarily resulting prevented (or at least have postponed) the recording of marriages and births, especially the latter, in San Francisco and other counties.

Altogether 607 deaths were reported as due to earthquake and fire, 395 being in San Francisco and 212 in other counties. The bulk of the deaths outside the metropolis were at Agnews State Hospital and in Santa Rosa city, the rest occurring mainly among refugees from San Francisco dying of exposure or fright.

Of the normal deaths for the State outside the metropolis, tuberculosis, as usual, was the leading cause, followed by heart disease and pneumonia. The principal epidemic diseases were typhoid fever, measles, influenza, and diphtheria and croup.

*Causes of Death.*—The confusion resulting from the great fire in San Francisco has delayed the transmittal of original certificates for that city, so that only a brief summary of deaths there from April 18th to 31st is available. Accordingly, the following table shows the number

of deaths in April due to certain important causes only for the rest of the State:

	San Francisco.	Rest of State.
ALL CAUSES.....	547	1,839
Typhoid fever.....	21	
Malarial fever.....	8	
Smallpox.....	5	
Measles.....	18	
Scarlet fever.....	8	
Whooping-cough.....	5	
Diphtheria and croup.....	15	
Influenza.....	16	
Other epidemic diseases.....	9	
Tuberculosis of lungs.....	276	
Tuberculosis of other organs.....	36	
Cancer.....	81	
Other general diseases.....	50	
Meningitis.....	27	
Other diseases of nervous system.....	127	
Diseases of circulatory system.....	215	
Pneumonia and broncho-pneumonia.....	145	
Other diseases of respiratory system.....	40	
Diarrhea and enteritis, under 2 years.....	27	
Diarrhea and enteritis, 2 years and over.....	11	
Other diseases of digestive system.....	88	
Bright's disease and nephritis.....	99	
Childbirth.....	14	
Early infancy.....	37	
Unspecified natural causes.....	145	101
Suicide.....	23	
Earthquake and fire.....	395	212
Other violence.....	7	125

Altogether 607 deaths were due to earthquake and fire—395 in San Francisco and 212 in other counties, as follows: Santa Clara, 139; Sonoma, 55; Alameda, 12; Sacramento and Solano, 2 each; and Napa and Nevada, 1 each. The bulk of the deaths in Santa Clara County were at the State Hospital at Agnews, and all in Sonoma County were in Santa Rosa city. Most of the deaths in Alameda County and all in the remaining counties occurred among refugees from San Francisco, young children dying from exposure and elderly people from fright or heart disease.

Of the normal deaths in the State outside of San Francisco, tuberculosis, as usual, was the leading cause, 276 deaths being due to tuberculosis of the lungs and 36 to tuberculosis of other organs. The next highest number, 215, was for diseases of the circulatory system (heart disease, etc.), followed by 145 for pneumonia and broncho-pneumonia.

The leading epidemic diseases in April were: Typhoid fever, 21; measles, 18; influenza, 16, and diphtheria and croup, 15.

#### THE CATASTROPHE IN SAN FRANCISCO.

On the morning of April 18th a severe earthquake visited San Francisco and surrounding towns. Chimneys and cornices were thrown down and buildings of poor construction destroyed. Houses on wooden foundations that had decayed went down, and brick structures built with mortar which was largely sand, collapsed.

In San Francisco fire immediately followed and, owing to the destruction of the water mains, swept over and destroyed a large part of the city, rendering homeless 300,000 people. The loss of life was severe, but not so great as in many other calamities. Reports which are nearly complete show a death list of 607 in the entire State.

The State hospitals were badly damaged, Agnews being almost entirely destroyed, and the Home for Feeble-Minded was injured to the extent of many thousand dollars. In this institution, however, no one was injured. There are lessons to be learned from the disaster, and if properly heeded, some time, after the personal sorrow and distress are passed, we will look upon it as a blessing.

Three-story brick buildings which are unsightly, unsafe, and expensive will give place in State hospitals to smaller buildings, where patients can be segregated and receive better care, and which are infinitely safer. More care will be given to construction, and poor work will not be accepted.

Sanitary laws should be strictly adhered to in rebuilding San Francisco. No unsanitary parts should be allowed. Chinatown was not the only filthy place; but they are all gone and must never be allowed again. All buildings should be made rat proof, especially in the business parts, by making basements, on bottom and sides, of cement or some other rat-proof material.

Sewers and sewer connections should be improved and tenement houses built so that sun and air can have free access to every room. Should this one thing be done the saving of life from tuberculosis alone, would soon far more than offset the loss by the earthquake and fire.

There is now every chance to make the city the most beautiful as well as the most healthful in the world. There is no city for which nature has done more, and with plenty of pure water, which can be easily secured, and rebuilt along sanitary as well as artistic and utilitarian lines, the new and greater San Francisco will far outshine the old.

A better supply of water in safer pipes is also an urgent necessity for the San Francisco which is to come.

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The disaster in San Francisco gave occasion for a quick and effective sanitary organization and an exhibition of marked executive ability. The health authorities recognized the gravity of the situation and that the sanitary problem was of the utmost importance. With 300,000 people thrown out of home and business; with almost no water in the houses left unburned, and what there was of more than a doubtful nature; with the sick freely mingling with the well; with camps established everywhere, and all without sewer connections; and with irregular food and scanty covering, there was justification of the fear that much sickness would result. The day following the commencement of the fire, a thorough organization for the protection of health was formed. Col. George H. Torney, Deputy Surgeon-General and a thorough sanitarian and organizer, represented the U. S. Army; Drs. James W. Ward (president), Simon, Harrison, Hassler, and Ragan, the City Health Commission; Drs. Martin Regensburger and N. K. Foster, the State Board of Health; and Dr. Sawtelle, the U. S. Public Health and Marine Hospital Service.

Dr. Ward, as President of the City Health Commission, was given full power to control sanitary measures, and the control could not have been put into abler or more willing hands. Long before the fire was out, headquarters were established in Golden Gate Park, hospitals started, the city districted and each put under a responsible chief, the camps were patrolled and inspected, toilets were established, and plans formulated for concentration in a single camp. As rapidly as

possible a house-to-house inspection was made, all garbage cleaned up, people removed from unhealthy localities to those better adapted to their needs, and instructions issued about how to protect the healthfulness of the individual and camp. Cleanliness was insisted on and an earnest effort made to prevent the pollution of the soil.

The Medical Department of the U. S. Army, the U. S. Public Health and Marine Hospital Service, and the State Board of Health all worked in harmony with the city authorities, and all have the satisfaction of knowing that the quick active work was effective, and now, after a month's time, there is no more than the normal amount of sickness in the city.

This exhibition of sanitary work—a work that is unparalleled in effectiveness—could not have been accomplished had it not been for the active coöperation and hard, earnest work of the doctors of the city. With their offices and contents burned, and oftentimes with all they had on earth except their courage gone, they gave their time and best endeavors to succor the stricken city. They toiled in whatever place or position it was necessary to relieve suffering, and no history of the great catastrophe will be complete that does not fully recognize their noble work.

#### SMALLPOX.

In the last two issues of the Bulletin we have called attention to the existence of smallpox in the different parts of the State, and to the necessity of prompt isolation and vaccination. The need of this is intensified by the fire in San Francisco. As reported last month, smallpox was quite extensive in that city. Owing to the dread of quarantine there is always a certain number of cases that are never reported to the health officers. Most of these are light cases and have no physicians. They are, however, as dangerous as a more severe case, and those contracting the disease from one of them is just as liable to have a severe attack. Some of the non-reported cases are attended by physicians, who, for reasons of their own, do not report them. Under normal conditions some of these take reasonable care, remain isolated until all danger of spreading the disease ceases, and are careful that proper disinfection is practiced. Many—yes, most—do not, and in this way the disease is kept alive.

In an accident like the recent burning of San Francisco they are all driven out and are mixed generally with the people. The sick and those who had been exposed have spread out over the surrounding country, and, as was to be expected, we have now many points of infection and undoubtedly more will appear. Under these conditions it is absolutely necessary for the local health departments to exercise the greatest care. Physicians should report all cases, even those in doubt. It is better to keep a few quarantined until the nature of the disease can be established than to let any be exposed unnecessarily. Vaccination should be urged in all cases, and the State law in regard to vaccination in schools should be enforced. To quarantine all those who have been exposed to smallpox oftentimes works a hardship, and is really unnecessary. *Vaccination will stop the disease—nothing else will.* All contacts should be vaccinated and disinfected, if it is possible that their clothing may have received the contagion, after which they can be allowed to go

to their usual employment, provided they can be under inspection by the health department; should they become sick they can be isolated before there is danger to others.

While the greatest care and firmness must be exercised, we must remember that we are facing a condition in the State never before experienced in this country, and temper our acts accordingly. We must protect the health of the community, sometimes with what may seem arbitrary measures, but no unnecessary restraints should be imposed.

#### MEETING OF THE PUBLIC HEALTH ASSOCIATION.

The sixth semi-annual session of the California Public Health Association was held in San Francisco, April 16th. Each session has increased in interest, and this was no exception. The day was given to papers and discussions on the water supplies of the State and on the disposal of sewage.

The first paper, "The Condition of California Water Supplies," by Dr. N. K. Foster, was a description of the polluted condition of many of our streams, and also called attention to the danger of wells located so they could receive the drainage of toilet or corral.

Prof. Chas. G. Hyde, of the University of California, read a paper on "The Sanitary Quality and Purification of Public Water Supplies." He explained the needs of pure water for domestic and manufacturing purposes, and said that the clear, sparkling water was not always pure, nor the turbid one always unhealthful. He compared the typhoid ratio in Massachusetts and Pennsylvania, as showing the good results of carefully guarding the streams.

Mr. George L. Hoxie, City Engineer of Fresno, read a paper on "Sanitary Disposal of Sewage," advocating strongly the disposal of sewage on land, either direct or after treatment in the septic tank, and describing fully the new disposal system being installed in Fresno.

Dr. Charles F. Clark, of Willits, read the last paper, on "Sewage Disposal," giving in detail the process of bacterial destruction and showing the dangers of sewage pollution of land and water.

The discussions that were brought out were of great interest, and an effort will be made to have the whole proceedings published.

The following officers were elected for the coming year: President, Wm. Simpson, M.D., San José; Vice-President, James W. Ward, M.D., San Francisco; Secretary and Treasurer, N. K. Foster, M.D., Sacramento.

The next meeting will be held in San José, at the call of the Executive Committee.

#### TYPHOID FEVER.

Typhoid fever is reported from several parts of the State, and in some it is quite severe. In those parts where the disease is severe, the water supply is under suspicion and is doubtless the cause, as in most cases the pollution is plainly to be seen, and in all there is a possibility. Typhoid fever is a preventable disease and should not be allowed to exist; it is a disease of filth, for it is only communicated through the excreta of the diseased person. This excreta, being loaded with the germs of typhoid, and finding access to our food and drink, and there-

fore taken up again by the human system, causes the disease. The prevailing custom of using the creek-bed for a sewer and repository of all rubbish is responsible largely for the spread of typhoid fever. This disposition of sewage is costly in lives and expense of sickness, but will probably go on until the whole question of sewage-disposal and water-supply is placed under some responsible head. Where typhoid fever exists all water should be boiled until a pure supply can be had. Flies, as a means of spreading the disease, must not be overlooked, for they are a strong factor. Lighting on the dejections of the sick they become loaded with the germs and fly to the table and infect the food.

Much of the disease could be prevented if all discharges from the patient were destroyed—not emptied into the cesspool or sewer, but burned or thoroughly disinfected. To do the latter, cover all discharges with a five per cent solution of carbolic acid and allow it to stand for two hours. This solution is cheap, effective, and is generally easily procured.

Health officers should insist that all cases be reported by physicians and that proper disinfection be practiced.

#### DIPHTHERIA.

Diphtheria is not especially prevalent in the State, but in the present disturbed condition, where many are changing localities and some wandering aimlessly about, there is danger of its being spread. *All cases of sore throat should be closely watched.* Each health officer should send to the State Hygienic Laboratory, at Berkeley, for a supply of diphtheria mailing outfits, and send a swab of each case of sore throat for examination. This will clear up any doubtful diagnosis and often save an epidemic. Antitoxin should be freely used both in treatment and as a prophylactic. It is harmless and effective if properly used. The utmost care must be exercised in disinfecting after the disease. An imperfect disinfection is worse than none, for while doing no good, it gives a feeling of security which is false. At the present time formaldehyde is more largely used than any other disinfectant, and in many respects it is excellent, but it must be used in sufficient quantities. Examinations at the State Laboratory show that the commercial article sold as a 40 per cent solution is often as low as 30 per cent and never to the full 40 per cent. This weakness makes it necessary to use more, and in no case should there be used less than one pint to every 1000 cubic feet of space to be disinfected. The room must be closed tightly and remain unopened for at least twelve hours.

In diphtheria, as in typhoid, the agency of flies and other insects in carrying disease must not be forgotten, and the windows and doors should be thoroughly screened.

#### CAMPING.

The camping season is at hand, and many hundreds of Californians are planning trips to the mountains or sea coast. Nothing can be more conducive to health than a few weeks of outdoor life, if properly taken. It renews the vigor, and we come back to work with increased ability to cope with the problems before us. There are grave dangers, however, lurking in camp life, and many return sick, or at least weaker than

when they started. Besides, campers frequently endanger the lives of those left behind by unwittingly polluting the water which flows by the camp to supply the towns.

The healthful condition of the large camps in San Francisco should be a lesson to all campers as to their own safety. The water that looks so pure and which is drunk so freely may be badly polluted. It is well to examine the stream and see if some one is not camping above you and using it as a sewer. Possibly a corral or a farm yard may be just above. If pollution is found, either move, or boil for fifteen minutes all water used. Back from the creek you should dig a vault for a toilet, and all garbage should be either buried or burned. Allow no place to exist where flies can breed, for they are the carriers of disease. Uncooked vegetables are sometimes poisoned by the fertilizer used or by being irrigated with sewage water. If near mineral springs, don't drink too freely from them, for much harm sometimes results from this excess.

Above all, don't pollute the stream and endanger the lives of those below who may want to use the water.

“S. S. S.”

Dr. Ragan, Health Officer of San Francisco, claims to have made a great scientific discovery. It is nothing less than a “sleeping sickness serum.” He warrants that one dose properly administered will remove all disposition to sleep and keep the patient at work for twenty hours a day. He says that the long hours of faithful work performed by the San Francisco Health Commission were due to its use. They certainly did the work, but we have an idea that the doctor's serum consists of a deep interest in the health of the people. At any rate, Doctor, the Bulletin is at your disposal to inform the world of the truth, and if you succeed in inoculating every health officer with the same energy and success as were shown in San Francisco you will gain the gratitude of the people of the State.

MOSQUITOES AND FLIES.

It is interesting to note that many cities and towns are taking an active interest in the destruction of mosquitoes, and the State Board of Health has reason to believe that its labor in this field is bearing fruit. The present Board has urged through its Bulletin, by letters, and by word, the danger of this pest. Health boards and the people are appreciating the fact that mosquitoes are not only an intolerable nuisance and carriers of disease, but that they can be readily destroyed by preventing their breeding.

The common house fly is as great a nuisance and perhaps a greater menace to health. Bred in filth of the most revolting kind, flies become laden with germs and come to our tables to partake of and poison our food. Many obscure cases of contagious disease can be charged up to the account of the house fly. Laws will soon be passed making their breeding-place a nuisance.

What California town will be the pioneer?

NOTES.

The season of trade-winds and dust is at hand, and it behooves every one to use care. If obliged to breathe in dust, breathe through the nose. Always keep victuals away from dust, especially milk; and grocers and bakers should keep their goods protected from its contaminating influence. We are in danger where we least expect it. In a city where the water is not absolutely pure and many careful citizens use water drawn from an artesian well, the writer saw the man who serves it take a can from the wagon, pull off the cover, and, with the wind filling the air with dust composed of dry earth, horse manure, dried sputa, and all other filth of the street, allow the water to flow from the tank to the can, carrying disease with it—a quality of the dust. In the immediate neighborhood were cases of typhoid fever, tuberculosis, and diphtheria. Do we fully appreciate the danger from dust?

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The Commission of Health of Chicago has recently ordered that all cases of tuberculosis be reported, not with any intention to quarantine or in any way interfere with treatment; but for purposes of preventing the spread it is necessary to know the location of all cases. In Kansas the State Board of Health has ordered that all county health officers require the disinfection of every house in which a death occurs from tuberculosis. In California tuberculosis is a reportable disease, and every case should be promptly reported. No harm could possibly result, but much good would, if every center of infection was known to health officers, and the sooner we follow the example of Kansas the better.